

## § 21.906

EFFECTIVE DATE NOTE: At 63 FR 65104, Nov. 25, 1998, § 21.905 was amended in part by adding paragraph (d). Paragraph (d)(3) contains information and recordkeeping requirements and will not become effective until approval has been given by the Office of Management and Budget.

### § 21.906 Antennas.

(a) Transmitting antennas shall be omnidirectional, except that a directional antenna with a main beam sufficiently broad to provide adequate service may be used either to avoid possible interference with other users in the frequency band, or to provide coverage more consistent with distribution of potential receiving points. In lieu of an omnidirectional antenna, a station may employ an array of directional antennas in order to reuse spectrum efficiently. When an applicant proposes to employ a directional antenna, or a licensee notifies the Commission pursuant to § 21.42 of the installation of a sectorized antenna system, the applicant shall provide the Commission with information regarding the orientation of the directional antenna(s), expressed in degree of azimuth, with respect to true north, and the make and model of such antenna(s).

(b) The use of horizontal or vertical plane wave polarization, or right hand or left hand rotating elliptical polarization may be used to minimize the hazard of harmful interference between systems.

(c) Transmitting antennas located within 56.3 kilometers (35 miles) of the Canadian border should be directed so as to minimize, to the extent that is practical, emissions toward the border.

(d) Directive receiving antennas shall be used at all points other than response station hubs and shall be elevated no higher than necessary to assure adequate service. Receiving antenna height shall not exceed the height criteria of part 17 of this chapter, unless authorization for use of a specific maximum antenna height (above ground and above mean sea level) for each location has been obtained from the Commission prior to the erection of the antenna. Requests for such authorization shall show the inclusive dates of the proposed operation. (See part 17 of this chapter con-

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cerning the construction, marking and lighting of antenna structures.)

[44 FR 60534, Oct. 19, 1979, as amended at 52 FR 37786, Oct. 9, 1987; 58 FR 44896, Aug. 25, 1993; 63 FR 65104, Nov. 25, 1998; 64 FR 4054, Jan. 27, 1999]

EFFECTIVE DATE NOTE: At 63 FR 65104, Nov. 25, 1998, § 21.906 was amended in part by revising paragraph (a). The paragraph contains information and recordkeeping requirements and will not become effective until approval has been given by the Office of Management and Budget.

### § 21.907 [Reserved]

### § 21.908 Transmitting equipment.

(a) Except as otherwise provided in this section, the requirements of paragraphs (a), (b), (c), (d), and (e) of § 73.687 of this chapter shall apply to stations in this service transmitting standard television signals.

EDITORIAL NOTE: At 63 FR 65104, Nov. 25, 1999, paragraph (b) was redesignated as paragraph (a) and newly designated paragraph (a) was revised. However, paragraph (a) already exists. The text of the newly redesignated paragraph (a) follows:

(a) The maximum out-of-band power of an MDS station transmitter or booster transmitting on a single 6 MHz channel with an EIRP in excess of  $-9$  dBW employing analog modulation shall be attenuated at the channel edges by at least 38 dB relative to the peak visual carrier, then linearly sloping from that level to at least 60 dB of attenuation at 1 MHz below the lower band edge and 0.5 MHz above the upper band edge, and attenuated at least 60 dB at all other frequencies. The maximum out-of-band power of an MDS station transmitter or booster transmitting on a single 6 MHz channel or a portion thereof with an EIRP in excess of  $-9$  dBW (or, when subchannels are used, the appropriately adjusted value based upon the ratio of the channel-to-subchannel bandwidths) employing digital modulation shall be attenuated at the 6 MHz channel edges at least 25 dB relative to the licensed average 6 MHz channel power level, then attenuated along a linear slope to at least 40 dB at 250 kHz beyond the nearest channel edge, then attenuated along a linear slope from that level to at least 60 dB at 3 MHz above the upper and below the